IMSA’s mission is to “ignite and nurture creative, ethical scientific minds that advance the human condition.” That’s a tall order, and we don’t apologize for that! Many of society’s challenges in this century will be addressed by leaders in science, technology, engineering and mathematics (STEM). IMSA strives to develop leaders who will use their talents in STEM to work collaboratively to make positive social impacts.

At IMSA, we create conditions that enable students to develop and demonstrate their leadership skills. This issue highlights the many opportunities students have to expand their leadership capacities through advocacy, service, entrepreneurial ventures and collaborative problem solving.

Our leadership programs help students to realize their enormous potential to surmount obstacles, to be resilient risk takers, and to accomplish great things. We proudly acknowledge the contributions that our students and our alumni are making on campus, in the community, across the country and beyond. In this issue, you’ll enjoy profiles of several alumni who share their perspectives on leadership and how their experiences at IMSA shaped their views and developed their skills.

Leadership is not just something we teach, but something we do and do well. Our faculty and staff are contributing to their fields by publishing scholarly work, presenting at state, national and international conferences, and taking leadership roles in professional associations.

IMSA continues to lead the way in teaching and learning grounded in imagination and inquiry and in Problem-Based Learning (PBL). Most recently, our faculty provided hands-on professional development to 200 Illinois teachers who left wanting more. One Illinois teacher remarked, “I thought I’d be a little intimidated being that I regard IMSA [teachers] as some of the best, but it was really rather the opposite. I found myself wanting them as my teachers and wanting to stay and keep learning more!”

Our mission statement begins with our aspiration to be “the world’s leading teaching and learning laboratory for imagination and inquiry.” Thanks to students, staff and alumni, we are on our way, but we have much more to accomplish with your continued support. We hope you enjoy this current snapshot of what we are doing and you are able to see our incredible potential to lead and to serve by “advancing the human condition.”
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Two teams from the Illinois Mathematics and Science Academy (IMSA) received the highest ranking possible in the 12th annual international High School Mathematical Contest in Modeling (HiMCM). Their results placed IMSA among the top eight schools in the world in this year’s competition. The two IMSA teams including Paul Chung, Derek Hardin, Bonny Jain, Seohyun (Chris) Kim, Vladislav Kontsevoi, Andrew Lee, Sid Narayanan and Yanchen (Jack) Shi both received the rank of “National Outstanding.” Only eight teams out of 277 that competed worldwide received this ranking. A third IMSA team including sophomores Webster Guan, Peter Lu, Nolan Maloney and Stanley Yuan received the rank of “Regional Outstanding.”

The High School Mathematical Contest in Modeling is a 36-hour contest where each team is expected to solve a mathematical modeling problem. Each team then prepares and submits a paper discussing their solution to the problem.

IMSA’s first “National Outstanding” team had to build a mathematical model to devise an effective, feasible, and cost-efficient national water strategy for 2010 to meet the projected needs of the United States in 2025. In particular, the model had to address storage and movement, de-salinization and conservation as some of the possible components of the strategy while considering the economic, physical, cultural and environmental effects. Students then had to provide a position paper for the United States Congress outlining their approach, its costs and why it is the best choice for the nation.

IMSA’s second “National Outstanding” team had to create a mathematical model to compare the devastation of various-sized earthquakes and their resulting tsunamis on the following cities: Boston, MA; Charleston, SC; Hilo, HI; New Orleans, LA; New York, NY; and San Francisco, CA. Students then had to prepare an article for the local newspaper that explained what was discovered in the model about one of those cities.

Grant From ComEd, An Exelon Company Advances IMSA Energy Center

The IMSA Fund for Advancement of Education (www.imsa.edu/giving) received a $25,000 grant from ComEd, An Exelon Company to support IMSA Energy Center initiatives. The IMSA Energy Center fosters students’ natural concern for their environment and their desire to ensure a sustainable future for all. The grant will help IMSA students to generate energy through the installation of solar panels and a wind turbine. Through demonstrations, enrichment programs and a mobile energy house, IMSA students and staff share their knowledge and findings about energy sources with students throughout Illinois.

IMSA Summer Programs Include New Offerings

IMSA’s 2010 summer programs which serve Illinois students in grades 3–10, include a number of first-time offerings. Let’s Do Launch, to be held in Belleville, is a co-ed residential program for 7th and 8th grade students who will spend one week learning mathematics and science as they explore Newton’s Laws of Motion and design and launch their own rockets. In Tracking Killer Storms, a program to be held in Aurora and Belleville, 6th, 7th and 8th grade students will learn how to use weather instruments, study severe weather events and follow the evolution of forecasting. IMSA 2010 summer programs for students will be held on IMSA’s campus in Aurora and at locations in Belleville, Carbondale, Chicago, Lake County, Rockford and Springfield. For more information about Summer@IMSA programs, visit IMSA’s homepage at www.imsa.edu, contact summerprograms@imsa.edu or call 630-907-5987.
IMSA Student Entrepreneurs Pitch Winning Ideas to Innovation Experts

IMSA student entrepreneurs pitched a variety of new business ideas including Gargle ‘n Go, Shock-Tool Technology and PrepUp to venture capital investors and entrepreneurial leaders during the IMSA TALENT Power Pitch Contest.

Student teams and individuals pitched 12 ideas for a business, product or service to potential investors who served as expert panel judges. The panel included: IMSA Class of 1989 graduate John Hoesley, partner at Prism Capital Corporation; Lance Pressl, president of the Chicagoland Chamber of Commerce Foundation; Stacy Ratner, founder and executive director of Open Books; Kelli Rhee, vice president of Sandbox Industries and Nik Rokop, managing director of the Knapp Entrepreneurship Center at the Illinois Institute of Technology.

The first-place winner of a $3,000 award was Alex Goins for Filesmelt, a service which enables users to upload files and images quickly and easily on the Web. The second-place winner of a $2,000 award was Allie Larrabee for Confidence Unlimited, an educational enterprise centered around a program called Absolutely Incredible Kids, which uses video and Web-based learning to help children and families understand the importance of self confidence. Third-place winners were Kevin Chen and Michael Mirski for PrepUp, an affordable online service to prepare students for taking standardized tests.

The project is made possible, in part, by a generous gift from Virginia B. Cherry.

Students Excel in National and Global Venues

Irene Chen, Bonny Jain, Vladislav Kontsevoi, and Anusha Kumar are among only eight students from Illinois and 300 in the nation who were named Intel Science Talent Search (Intel STS) Semifinalists in the 69th Annual Intel Science Talent Search. Often considered the “junior Nobel Prize,” the Intel STS recognizes the most accomplished students and their schools for excellence in science and mathematics.

Irene Xiong Chen won first place at the 2009 Yau High School Mathematical Awards held in Beijing. Her winning project is titled “Coordinate-free characterization of homogeneous polynomials with isolated singularities.” A panel of world-renowned mathematicians led by Fields medalists Terence Tao and Shing-Tung Yau judged the presentations.

Amishi Bajaj and Anusha Kumar were selected as the Illinois State Finalists in the 2010 sanofi-aventis International BioGENEius Challenge.

Bonny Jain was a recipient of the 2009-2010 Siemens Awards for Advanced Placement. Only one male and one female from each state are selected for this award.

Evan Adcock, Amy Allen, Gabriela Cardoso, Salvador Esparza, Emerald Fannin, Shravanthy Gumidyal, Judith Hooymans, Jade Martin, Isolina Rossi and Jacklyn Tusack were gold medal recipients at the advanced level, and Lisa Akinifio, Robert Baginski, Kevin Baker, Wesley Bradley, Govind Govind-Thomas, Andrew Heuser, Michael Kobiela, Connor Tomasko, Sarah Weitekamp and Elson Yu were gold medal recipients at the intermediate level for essays submitted to the 28th National Russian Essay Contest.
Kevin Chen, Johnny Duan, Cassie Parks, Elizabeth Richardson and Paul Yuan were selected to participate in the Illinois Music Educators Association (IMEA) All-State Music Festival, one of the highest honors granted by the IMEA.

Sidanth Sapru is one of two Illinois students selected as a delegate to participate in the 48th Annual United States Senate Youth Program (USSYP), held in Washington D.C. Each year the competitive merit-based program brings 104 of the nation’s most outstanding high school students for an intensive week-long study of the federal government and the people who lead it.

**IMSA Faculty and Staff Contribute to Their Fields**

IMSA President Dr. Glenn W. “Max” McGee has been appointed chair of the Illinois P-20 Council Assessment Committee. The Illinois P-20 Council is responsible for establishing a statewide agenda that integrates all levels of learning in Illinois. As chair of the Council’s Assessment Committee, Dr. McGee will guide a team in developing recommendations for innovative assessments for learning, for using assessment data to shape school improvement practices and for sharing data with key stakeholders.


The following is a sample of 2009 publications authored or coauthored by IMSA faculty and staff:

Dr. Jeong Hwang-Choe – science faculty

Dr. Peter Dong – science faculty

Dr. Daniel Gleason – English faculty

Dr. Vincent Matsko – mathematics faculty

Dr. Noah Prince – mathematics faculty

Dr. Noah Prince – mathematics faculty

Dr. Noah Prince – mathematics faculty

Dr. Judith Scheppler – coordinator of Student Inquiry and Research, Dr. Susan Styer – science faculty, Dr. Donald Dosch – science faculty, Joseph Traina – science faculty and Christopher Kolar – coordinator of research and evaluation

Dr. Eric Smith – history and social science faculty

Dr. Eric Smith – history and social science faculty
Keeping Our Homeland Safe

Michael Brody ’96, Federal Emergency Management Agency (FEMA), National Preparedness Assessment Division – Reporting Chief, was accepted into the Naval Post Graduate School, Center for Homeland Security and Defense Masters Degree Program. The program is structured around the key policy and organizational design problems that future homeland security leaders are likely to confront, and the analytical skills they will need to meet those challenges. “I am excited to be a part of it as I will get the chance to study with officials from every level of government, from all over the nation,” Brody said. Details on the program are available at http://www.chds.us/?masters/overview.

“Waltzing” Through the Galaxies

Dr. Julie Comerford ’98, a postdoctoral researcher in astrophysics at the University of California-Berkeley, is featured in the January 5, 2010 issue of U.S. News and World Report in the article “A Black Hole Dance Party.” The article features Dr. Comerford’s research work on ‘waltzing’ black holes discovered in galaxies. To view the complete article, visit https://www3.imsa.edu/news/releases.

Leadership in Retirement Health Care

Debra Reardanz ’90 was appointed President and CEO of Clark-Lindsey in Urbana. She is only the third person to hold this position since Clark-Lindsey opened in 1978. Clark-Lindsey Village, Inc. offers independent living in The Village and assisted living, nursing care and memory care, as well as therapy services in Meadowbrook Health Center. Previously, Reardanz was vice president and chief financial officer for the organization since 2003 and serves as the Administrator of Meadowbrook Health Center. She recently was named one of 40 notable executives under the age of 40 by Central Illinois Business Magazine.

“Nature Methods” Features Cancer Researcher

University of Chicago Ph.D. student Mark Ciaccio ’98 was featured in the February edition of the professional medical journal Nature Methods for his cancer research work. Ciaccio co-authored Systems analysis of EGF receptor signaling dynamics with microwestern arrays which was featured in the publication. The Daily Journal (Kankakee) newspaper reported that Ciaccio’s research focuses on a “process for more efficiently isolating and identifying the many forms of cancer.”

Hoops History

Dwan Prude ’97 was part of history in the making as he coached Lincoln Middle School to East St. Louis’ first middle school state basketball championship claiming the 2009-10 title. “The positive energy and memories of IMSA made me realize that all of us who graduated from IMSA have a chance to change the state, the region, the country and the world!”

Emerging Artist

Realist Artist Lisa Gloria ’89 was featured in the November 2009 issue of Southwest Art Magazine as a winner in the “21 Over 31” competition. Her painting, entitled “The Washer,” was chosen from more than 2,000 entries of emerging artists over the age of 31. In the magazine, Gloria said her painting was a tribute to her late grandmother. “She was a hard-working, hard-cleaning sort of Czech woman,” she said. “Her work ethic is very much in my heart, but I didn’t dare do a painting about something that personal until after she was gone. Now, I find that the more personal the message, the more deeply it speaks to other people.” Learn more about Lisa Gloria at http://www.lisagloria.com.
Fred Chen ’93 co-authored a book with a former co-worker titled Neural Networks in Atmospheric Remote Sensing. For more details, visit http://artechhouse.com.

Richard Yao’03 and Amanda Murphy ’03 (pictured) were married on January 15, 2010 in Chicago in the presence of Meghan Murphy ’05, Elizabeth Murphy ’10, Theresa Murphy, Dale Riley ’02, Jason Khan ’03, Robert Yao, and family and friends. Richard and Amanda met at IMSA in 2002 in Mr. Michael Casey’s English class. A pirate and ninja reception at Starved Rock followed.

On Friday, November 6, 2009, Stephanie (Pimm) Lyon ’00 and Ezra Lyon ’00 became the proud parents of their first child, Akiva. He weighed 9 lbs. 3 oz. and was 20 inches long.

Scott Swanson Fund for Transformative Student Learning and Innovation

Established in Memory of
Scott Swanson 4/5/73 - 1/11/10
IMSA Alumnus, Staff Member and Board of Trustees
Distinguished Leadership Award Recipient

To honor the life and work of Scott Swanson, beloved son and friend, IMSA alumnus (Class of 1990), IMSA staff member, and recognized educational technology pioneer, the Scott Swanson Fund for Transformative Student Learning and Innovation has been established by Gail and Sherwyn Cotovsky (Scott’s mother and stepfather), and IMSA alumni Alyssa (Bennett) Mason ’90, Michele Jonsson Funk ’90, David Gabrinius ’90, Todd Groner Kopriva ’89, Tony Nuval ’98, Sandeep Paruchuri ’08, Michael Peil ’90, Sendhil Revuluri ’90, Mike and Jennifer Rudzinski, both ’90, Joe Shidle ’90, and Derek Wotlgam ’89.

This fund will support the purchase, creation and use of leading-edge and emerging technologies for transformative student learning and innovation at IMSA. Gifts will support student-driven projects in game-changing technology initiatives (such as the One Laptop Per Child initiative), advanced computing, new media, online virtual worlds, gaming, and CoolHub.IMSA, a collaborative innovative network. All of these were near and dear to Scott’s heart, and all offer opportunities for students to connect/collaborate with and be mentored by IMSA alumni, faculty and staff. This was very important to Scott.

Gifts of all amounts to the IMSA Fund designated for the Scott Swanson Fund will be deeply appreciated by his family and friends and by IMSA. As an alternative, donors may make a gift to any IMSA Fund giving option of their choice and designate this in memory of Scott.

Enabling creative, ethical scientific minds to be ignited and nurtured in personalized, innovative ways was Scott’s calling and legacy, and he lived his passion out loud, without apology.

Recently, the IMSA Fund was informed that Scott named it a beneficiary on his life insurance policy. He is now a member of our Kaleidoscope Society which recognizes leadership giving of five figures and up. Scott’s generosity will benefit IMSA student innovators who “go to the future” as Scott did.

To make a donation to this fund, visit https://www3.imsa.edu/giving/annual/alumni/swanson. To read more about Scott’s amazing legacy and leadership contributions, visit https://www3.imsa.edu/alumni.

Contribute to Community Notes Online!

What’s New in Your Life?

Let us and your fellow IMSA classmates/colleagues know about what you’ve been doing! Have you recently started a new job or been promoted? Are you involved in new and exciting community service projects or other activities? Have you recently been published, honored or elected? If so, please tell us about it at: www3.imsa.edu/news/community-notes

IMSA alumni (front row) Neal Groothuis ’97, Alicia Barta ’96, Eric Engelhard ’96 and (back row) Ginny (Virginia) Anderson ’98 and Eva Bach ’96 gather to celebrate the collective birthdays of Engelhard and Bach.
Hamster Ball Enthusiast

Leadership is frequently portrayed as an individual trait – learn this trick, practice that technique, and prepare for your moment of greatness. Communication skills, such as public speaking, might help a person who finds oneself in a position of authority, but I have trouble understanding how this would automatically translate into being a “good” leader. A skills-based approach to leadership obviously has a strong appeal as shown by the hundreds of titles on leadership at your local bookstore, but there is a better perspective for an institution with goals (and alumni) like IMSA’s.

Social scientists realize that individual behavior never occurs in a vacuum, and many researchers have attempted to explain the relationship between individuals and the groups in which they exist. An individual only fills the role of a leader in the context of his or her interactions with other individuals, so leadership cannot be understood separately from broader social and political networks. These networks will inevitably involve power dynamics that create moments of cohesion and stasis, or conflict and change.

So what does this have to do with IMSA? Viewing leadership as inseparable from social networks is a way to more fully understand the challenges that the IMSA community faces while trying to reach its goals. For example, the recently opened field offices can help the Academy more effectively reach downstate or Chicago-based instructors by approaching them as collaborators on equal footing with IMSA faculty and staff.

A broader view of leadership also provides a more holistic way to think about the significant contributions that alumni make to their communities every day. I often hear from alumni that their accomplishments do not seem exciting enough for IMSA to know about or publicize. I think this attitude would change if we celebrated alumni beyond a single moment of fame (or infamy!). In fact, IMSA values all alumni who implement positive change, from those who revolutionize their fields to those who enhance their local communities through active involvement in civic, political, cultural and educational initiatives. By consistently valuing and highlighting these stories, we can demonstrate that the opportunity truly exists for the IMSA community to draw upon the experience of all alumni.

—Matthew Knisley ’01
IMSA Alumni Association President
president@imsaalumni.org
In an interview with IMSA President Dr. Glenn W. “Max” McGee, we look at his views of leadership and how they translate into fulfilling IMSA’s mission to “ignite and nurture creative, ethical minds that advance the human condition.”

IMSA360: When talking about leadership you often refer to the book, Leadership on the Line by Heifetz and Linsky. What section is particularly meaningful to you?

McGee: Here’s an excerpt that I often quote from the book, “Exercising leadership can get you into a lot of trouble... To lead is to live dangerously because when leadership counts, when you lead people through difficult change, you challenge what people hold.... Leadership is worth the risk because the goals extend beyond material gain or personal advancement. By making the lives of people around you better, leadership provides meaning in life.”

IMSA360: How do you connect the themes of the book with your views on leadership?

McGee: Above all, leadership is about service in creating conditions, removing obstacles and taking purposeful action to make people’s lives better. That theme aligns perfectly with IMSA’s mission to “ignite and nurture creative, ethical scientific minds that advance the human condition.” IMSA also aspires to be “the world’s leading teaching and learning laboratory for imagination and inquiry.” Leading means going first. Leadership is also:

- Developing leadership capacity in colleagues.
- Focusing on a few, high priority initiatives.
- Action - getting things done for people.
Leadership is built on trust, relationships and some inspiration. It is built on having the courage to persevere, rise above self doubts and challenge the status quo.

**IMSA360**: How do your views connect with your role as IMSA’s president?

**McGee**: As president, I start each day thinking about:

- What I can do to drive our mission – igniting and nurturing creative, ethical scientific minds.
- What I will do in actions and words to instill individual and institutional commitment to advancing the human condition.
- Where my opportunities are to develop and support leadership among our students and staff.

**IMSA360**: You not only encourage students to be leaders in the fields of mathematics and science, you also encourage them to get involved in government. Why is that?

**McGee**: There has never been a time of greater need for creative, ethical scientific minds that advance the human condition... especially in government. There is no doubt that many of IMSA's graduates will make great discoveries, be successful entrepreneurs and solve our most challenging problems of hunger and sustainable energy. That is one of my most fervent wishes. The other, however, is that they get active in local government—or even state or national government—because we need their creative, ethical scientific minds, their big ideas and their abilities to solve tough problems. I would love to see them serve on community and philanthropic boards and be active in public service.

**IMSA360**: How does IMSA's Strategic Plan fit into the concept of leadership?

**McGee**: Over the past several decades, IMSA has received many honors, accolades and awards for its achievements. Such honors can tempt an organization to rest on its laurels. Our Strategic Plan ensures that we use our curiosities, energies and resources to continuously create and implement bold and innovative strategies and practices that help us reach our aspiration to be the world’s leading teaching and learning laboratory for imagination and inquiry.

**IMSA360**: Can you cite several examples of how the Strategic Plan has promoted program leadership?

**McGee**: Our third Strategy addresses program expansion which challenges us to make a broad impact on inquiry-based teaching and learning. To that end, we are establishing Field Offices in Chicago, Metro East and Rock Island so we can deliver programs that better address the local needs of teachers and students. We’ve also created conditions that enable our highly talented faculty to share their inquiry-based instructional practices with teachers across Illinois. For example, we partnered with Regional Offices of Education and the Abbott Fund to host a Science and Mathematics Professional Development Day for 200 Illinois teachers. On that day, our science and mathematics faculty members engaged teachers in hands-on, interactive workshops and activities. IMSA and our faculty received rave reviews from participants.

Another Strategy focuses on fostering innovation and entrepreneurial talent. Through this strategy, we’ve created **CoolHub.IMSA**, a collaborative innovation network that enables learners of all ages to develop ideas and solve real-world problems. For example, through a unique system of Web-based collaboration tools, CoolHub.IMSA is enabling students in IMSA's Environmental Chemistry class to connect with world-wide science experts and students from various high schools to address storm water purification which certainly does make life better for a whole lot of people.

**IMSA360**: So, do you connect leadership with improving lives?

**McGee**: Absolutely! That happens through service and developing the capacity in others to lead and to contribute to achieving IMSA's mission. I am happiest when I see what great work our staff, students and alumni do. To paraphrase one of my favorite proverbs, "When the best leader’s work is done, people will say, ‘We did it ourselves!’"
Student Leadership Development:
Learning to Lead at IMSA and Beyond

“The to lead is to invite, inspire, mobilize and guide ourselves and others to make positive differences in our homes, schools, communities and the world.”

~ Linsey Crowninshield, IMSA assistant director of Student Life: Leadership and Service

In an interview with Linsey Crowninshield, IMSA assistant director of Student Life: Leadership and Service, we learn how IMSA students become leaders and how they use their skills to serve others in the Aurora community, Illinois, the nation and the world.

IMSA360: When we talk about developing ethical leaders at IMSA, what do we mean by this?

Crowninshield: The underlying philosophies of Student Leadership Development at IMSA are grounded in the concept of leadership as a way of life best taught by example. We deem all students as future leaders. Through our interactions with students, we introduce and reinforce a skill base that can be applied to their personal and decidedly unique leadership styles.

Examples of Student Leadership in Action at IMSA

LEAD
The mission of Leadership Education and Development (LEAD), IMSA’s innovative, student-run leadership program, is to inspire its sophomore students through open classroom discussion, engaging and meaningful activities, real-life applications, and personal reflection so that they may become positive, ethical leaders who pursue their passions and utilize their individual capability to create the change they want to see in the world. The 2009-2010 program asks students to create a social action plan based on a global issue of their choice.
Shine On-Advancing the Human Condition

Shine On is an event created by three IMSA seniors who wish to honor those who have been affected by Hodgkins Lymphoma, raise awareness of the disease, and collect donations for research toward a cure. The event also was created in honor of a fellow classmate who is fighting Hodgkins Lymphoma. The main event, which involves supporters having their heads shaved to raise money for the cause, is preceded by a variety of smaller events, such as educational assemblies, stories from those affected by cancer, and a music festival aimed toward drawing attention to the head shaving event. More than 50 students and staff shaved their heads during the inaugural 2010 event which raised nearly $8,900 for The Leukemia & Lymphoma Society.

Continued on next page
Aurora Leadership Institute

In partnership with East Aurora School District 131, West Aurora School District 129, private schools in Aurora and City of Aurora Youth Services, IMSA hosted the inaugural Aurora Leadership Institute summer camp in 2009 for more than 30 7th and 8th grade students. Staff, alumni and IMSA student members of LEAD helped to facilitate the program. In addition, other community leaders helped to make the inaugural program a success including State Rep. Linda Chapa LaVia, Aurora Mayor Tom Weisner, Miriam Wade-Hicks, student assistant program coordinator for West Aurora SD 129, and Dan Barreiro, director of community services for the City of Aurora. The Aurora Leadership Institute was designed to develop existing leadership skills in its participants as well as introduce concepts of ethics and community service.

Baller Leader Program

Created by two IMSA students, this program includes workshops which focus on concepts such as passion, drive and commitment, teamwork and sportsmanship, and communication and attitude.

IMSA Graduate and Technology Entrepreneur
Sam Yagan ’95

Leading in Innovation and Technology

IMSA Graduate Sam Yagan, CEO and Co-Founder of OKCupid, says the IMSA environment is ripe for future leaders.

“The IMSA environment and curriculum naturally develop leadership,” Yagan said. “To succeed at IMSA, students must develop introspection, self-awareness and often a new identity or at least a new way to identify with their peers.”

Yagan says IMSA students often learn much more from their failures than their successes, a key leadership skill to carry throughout one’s life.

“In the course of trying new activities, courses, identities, and leadership roles, IMSA students learn as much from their failures as their successes,” Yagan said. “By the time students graduate and matriculate at college, they’ve almost certainly thought more about leadership, experimented more with leadership, and both succeeded and failed at leadership more than the vast majority of their incoming classmates, who often sailed through high school, their leadership never questioned or developed.”

Leadership, Yagan states, often comes when not looking for it, simply by setting a good example for others to follow.

“I came to IMSA never having played organized basketball. I had played for countless hours on my neighbor’s driveway, but I had never so much as worn a basketball uniform,” he said. “I tried out and made the sophomore team… when I walked out on the court to play the first organized basketball game of my life, I walked out as captain of the team. Despite not being the best player on the team by a long shot, I had demonstrated a thoughtful work ethic, and ability to lead by example that earned me the leadership position I hadn’t even been trying to achieve.”

Yagan says that students should not be afraid to lead, because “leadership voids abound in almost every walk of life and that many people truly want others to step up and lead.” Yagan, learning from his experience on the IMSA basketball team, has been a leader in technology innovation and was named Billboard Magazine’s “30 Under 30” in the entertainment industry. He is contributing to economic development in Illinois by serving as Executive Director for Excelerate, a summer mentorship program for Chicago-area technology entrepreneurs.

“My leadership style tends to focus around trying to think critically about my industry in ways that other people aren’t and then to communicate those ideas in ways that people can understand and get excited about.”

Yagan says IMSA students should not wait for others to tell them to lead.

“Step up. When you see an opportunity to make a difference or influence people, step up and do it. Eventually, you’ll be a leader, with or without a title.”
IMSA Graduate
Tuwanda Williamson, M.D. ’91

Leading Others in Need

IMSA Graduate and Medical Doctor Tuwanda Williamson ’91 says the biggest mistake a person can make is being afraid to fail and not pursuing one’s goals. That philosophy has helped Williamson attain many of her personal goals, including delivering health care to indigenous people in the Amazon rainforest and caring for people in inner-city Chicago.

“Go after everything with your full heart and soul. One only fails in stopping to pursue his/her goals.”

Following graduation from the University of Michigan Medical School in 1999 and the completion of her residency in 2002, Williamson went to work for Direct Relief International as the director of a medical team delivering care to 40,000 isolated villagers along the Rio Beni River in Bolivia. In addition to her current work as a physician, she is also the director of a local center in her hometown that provides care through local churches to those most in need.

A recipient of numerous prizes and awards, Williamson said everyone is capable of becoming a leader.

“Whether we like it or not or whether we set out to be a leader, there will always be those watching us and trying to follow in our footsteps,” she said. “Sadly there are those who refuse to see themselves as leaders, and do not realize the impact that they are having on those around them,” she added. “A leader can recover from the wrong path and bring their followers back to the path of success and achievement.”

Williamson said IMSA gave her the first opportunities to become a leader within a community.

“We had a number of jobs and responsibilities on campus that exposed us to leadership. One of the most important was my position as a resident assistant which required that I lead by example, guide and emotionally support my fellow classmates.”

Williamson continues to use those leadership skills today as a physician.

“I must counsel patients on a daily basis about improving their lifestyles to achieve healthy outcomes,” she said. “In doing so, I tell them about my own difficulties. Instead of a doctor sitting up on a mountain, I am still struggling to climb the mountain with them.”

The program is composed of three 15-minute workshops that are activity based and designed to develop skill sets that integrate a student athlete’s passion on the basketball court to the classroom. The workshop is facilitated to urban youth as part of a mentoring program to help teens realize their potential as athletes and students.

Leadership Symposium

IMSA’s annual Leadership Symposium is one of many initiatives designed to produce graduates, who are not only talented in their respective academic disciplines, but who also possess the skills necessary to become ethical leaders. The 2010 Symposium Haiti: Relief, Recovery, Rebuilding included concurrent sessions led by students throughout the day in the areas of: Political and Infrastructural Reform, American Aid-Country Sustainability, Education, Disaster Relief and Lost Children. Dr. Harold Wilde, president of North Central College, served as the keynote speaker for the symposium and Mallory Holding, Haiti Relief worker, introduced the day.

Continued on next page
DAY OF SERVICE

Beginning with school year 2010-2011, the entire IMSA community will participate in a Day of Service. Students and staff will work alongside each other to provide outreach to Aurora and surrounding communities at organizations such as the Volunteer Nurses Association (VNA) in Aurora; Peck Farm (Geneva Park District); Garfield Farm Museum in La Fox; Feed My Starving Children in Aurora; Batavia Wildflower Sanctuary; Fox River Clean Up in Aurora; Kane County Forest Preserve; Kennedy School in Aurora and Peoples Resource Center in Wheaton.

SENIOR SERVICE DAY

Senior Class and Student Council Officers have come forward to propose a Senior Service Day. Similar to the Day of Service, seniors this school year (2009-2010) will culminate their IMSA experience by serving their Aurora community as a class.

CONSIDERATIONS IN ETHICS COURSE

Considerations in Ethics is a year-long non-credit course offered to students in the 2009-10 year. The course introduces students to the substantive study of Ethics throughout the year and includes topics such as: Kantian Ethics, Aristotelian Ethics and Utilitarianism and Ethics. Guest speakers also are presented throughout the year (see photo).

EXTREME SCIENCE FAIR-MAY 2010 AURORA-KENYA

The Extreme Science Fair is an intensive 48-hour program where students from middle schools in Aurora are paired with students from IMSA in four-person teams. The teams are asked to use all of their ingenuity, creativity and inventiveness to define some science-related problems in the City of Aurora. Students learn science through hands-on activities and local community experts also are involved as "on call advisors." Local science teachers, technologists, science-related professionals and community leaders serve as judges of the proposals. This program is a pilot for a larger curricular piece to be introduced to Free the Children to support schools in Kenya.
As long-serving administrative and faculty leaders at IMSA, Dr. David Barr, Susan Eddins, Dr. Stephanie Pace Marshall and Dr. David Workman distinguished themselves and advanced IMSA’s legislative charges and mission in countless ways. Today these hardly-retired “retirees” and Board-designated IMSA Emeriti continue to lead for science, technology, engineering and mathematics (STEM) education and for IMSA in state, national and global arenas.

Barr serves on the steering committee that is designing and implementing a multi-year program, Leveraging Thought Leadership for Computational Thinking, funded by a National Science Foundation grant. Implemented jointly by the International Society for Technology in Education (ISTE) and the Computer Science Teachers Association, the project is identifying and engaging thought leaders in PK-12 education, higher education and the public and private sectors to determine how computational thinking can become more widely understood and integrated into educational practice. As a member of the National Educational Technology Standards (NETS) leadership team, Barr’s recent publications include draft rubrics for the NETS for Students, published online in August 2009; he is also a contributing author for the NETS for Administrators, Second Edition, 2009.

Eddins served as the lead writer for the revision of the American Diploma Project (ADP). Under the auspices of Achieve, Inc., a not-for-profit educational policy group in Washington, D.C., 46 states including Illinois are members of the ADP Consortium and have agreed to link their state standards to the ADP Benchmarks. The Council of Chief State School Officers and the National Governors Association convened representatives from Achieve, The College Board and the ACT to extend Achieve’s initial work on Common Core State Standards (CCCS) in Mathematics and English. Eddins served as the lead writer for the development of the first stage of the CCCS in Mathematics and now chairs the Teacher Review Group, leading and synthesizing input to documents drafted during the development process.

IMSA’s Founding President and President Emerita Dr. Stephanie Pace Marshall is widely recognized for her leadership and expertise in STEM education, gifted and talented education, educational policy, and learning design and innovation, and is a frequently sought after thinking partner and invited presenter, author and delegate. Marshall is a Trustee of the Society for Science and the Public, a member of the Advisory Board of Games for Change, and a charter member of the Advisory Board for the Association for Educational Communications and Technology’s Initiative FutureMinds: Transforming American School Systems and for The Innovation Council of Chicago. She participated as an invited delegate to the 2009 Dalai Lama Summit and Connecting for Change Conference in Vancouver, British Columbia, Canada, and as an invited panelist on Preparing the Next Generation of STEM Innovators, “Developing STEM Innovators Through the Educational System,” for the National Science Board of the National Science Foundation. She authored “STEM Talent: Moving Beyond Traditional Boundaries” in a recent issue of Science News.

Workman continues his work with the Mahidol Wittayanusorn School (MWIT) in Thailand. He led the design of a new course, Scientific Inquiries and the Nature of Science, modeled in large part on the Methods of Scientific Inquiry course at IMSA. He arranged for the acquisition of cosmic ray detection equipment by MWIT from the Quarknet program at Fermi National Accelerator Laboratory and presented a workshop that introduced the equipment to the school’s teachers. Recently he presented workshops to teachers from the 12 sister Chulaporn schools of MWIT and the Yushan Junior College of Singapore, helping these educators to incorporate more inquiry into their practice.

While these leaders are no longer “on the IMSA payroll,” they continue to advance the work and mission of IMSA as distinguished leaders in and for their professions, communities, states, nation and world.

To learn more about their contributions, visit https://www3.imsa.edu/board/emeriti.
To support and expand the Academy’s innovative teaching, research and external service programs/initiatives, the Illinois General Assembly appropriated an operating budget of $18.3 million in 2008-09. IMSA and the IMSA Fund for Advancement of Education work to secure the support and participation of various constituencies including individuals, corporations, foundations, educational institutions and governmental agencies to advance the Academy’s mission. In 2008-09, $2.6 million in supplemental funding (gifts and grants) was provided.

IMSA parents paid a fee between $340 and $2,660 in 2008-09 to offset some of the costs of cocurricular programs and residential services.

To receive a copy of the 2008-09 IMSA Fund for Advancement of Education Annual Report, contact the Office of Advancement at (630) 907-5040.

IMSA is audited by the Illinois Auditor General.
Each academic year includes journeys filled with exciting opportunities and extraordinary outcomes. We carefully plan many of our journeys in order to ensure maximum results, but some are spontaneous ventures that evolve from the incredible imaginations of our community members.

Academic year 2010 includes impressive examples of staff innovation and leadership. IMSA was named the nationwide winner of the 2009 Intel Schools of Distinction Star Innovator Award. Through funding made available from the Intel Award, our faculty and staff are designing innovative pilot projects ranging from Increasing Female Enrollment and Attainment in Physics, Self-Paced Learning in the Scientific Inquiries Physics Classroom, to Microscopes on the Go. Our faculty and staff members also contributed to their respective fields by authoring articles that are published in respected peer-reviewed publications such as Physical Review Letters, Poetics Today, Journal of Chemical Education and Discrete Mathematics to name a few.

Through our Strategic Plan, we are helping students to develop increasingly personalized plans of study. Enhanced assessments of student mastery in core areas provide the data we need to help students design their unique learning paths. The assessments guide us in giving students additional support in areas where they may need assistance and in helping students with advanced mastery to develop learning opportunities that challenge their interests and abilities. We are strong advocates of integrated learning experiences that include interdisciplinary studies and real-world applications. That’s why future plans include the development of a policy for the accreditation of external learning experiences and expanded options for senior year experiences.

Our second-to-none Student Inquiry and Research Program (SIR) enables students to partner with distinguished scholars, scientists, entrepreneurs and other professionals to pursue problems that challenge our global community. Through SIR and independent projects, students once again achieved honors in competitions including the Intel Science Talent Search, Siemens Competition in Math, Science and Technology and the sanofi-aventis International BioGENEius Challenge. Our IMSA students also achieved world-class results in mathematical competitions including the Yau High School Mathematical Awards and the international High School Mathematical Contest in Modeling (HiMCM).

Our award-winning Energy Center has evolved from our students’ natural concern for their environment. Through the Center, IMSA students are generating energy through the installation of solar panels and a wind turbine. Our growing TALENT program has also evolved from students’ natural interest in creating solutions to life’s challenges. In this year’s IMSA TALENT Power Pitch competition, our student entrepreneurs pitched their innovative ideas for a business, product or service to an expert panel of venture capital investors and entrepreneurial leaders.

I am proud to be a member of the IMSA community. Our faculty, staff and students embrace the Academy’s aspiration to become the world’s leading teaching and learning laboratory for imagination and inquiry. They question, probe, experiment and share their findings. They do so with a common purpose—to enhance the lives of others.

The internationally recognized Illinois Mathematics and Science Academy® (IMSA) develops creative, ethical leaders in science, technology, engineering and mathematics. As a teaching and learning laboratory created by the State of Illinois, IMSA enrolls academically talented Illinois students (grades 10-12) in its advanced, residential college preparatory program, and it serves thousands of educators and students in Illinois and beyond through innovative instructional programs that foster imagination and inquiry. IMSA also advances education through research, groundbreaking ventures and strategic partnerships. (www.imsa.edu)
SAVE THE DATE for the Following IMSA Events!

IMSA Class of 2010 Commencement       June 5, 2010
Alumni Weekend          July 23-25, 2010
For information on IAA events, visit www.imsa.edu/alumni

IMSA Offers RSS Feeds

The IMSA Web site offers an RSS Feed of our top news stories. For more information on how to subscribe visit www.imsa.edu.

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